

Atty. Dkt. No.:EPI3007D
(formerly TSRI 184.2CON-3)

This is a continuation application of co-pending US Application Serial No. 09/199,534, filed November 25, 1998, which is a continuation application of U.S. Application Serial No. 08/642,406, filed May 3, 1996, now U.S. Patent No. 5,959,177, which is a continuation-in-part of U.S. Application Serial No. 07/971,951, filed November 5, 1992, now U.S. Patent No. 5,639,947, which is a continuation of U.S. Application Serial No. 07/591,823, filed October 2, 1990, now U.S. Patent No. 5,202,422, which is a continuation-in-part of U.S. Application Serial No. 07/427,765, filed October 27, 1989, now abandoned, all of which are incorporated by reference in their entirety herein.

In the Claims

Please cancel claims 21-40, 42, 44-47, 49, 51-57, 64, and 68 without prejudice or disclaimer. Applicants expressly reserve the right to prosecute subject matter no longer or not yet claimed in the instant application or in one or more applications which may claim priority hereto.

Please amend claims 43, 48, 50, 58-60, 65-67 as follows:

43. (Amended) A plant cell that contains nucleotide sequences encoding a biologically functional multimeric protein not normally produced by the plant cell, wherein said multimeric protein is an immunoglobulin molecule, said nucleotide sequences encoding an immunoglobulin heavy and light chain polypeptide wherein each polypeptide contains a leader sequence forming a secretion signal; and immunoglobulin molecules encoded by said nucleotide sequences, wherein each leader sequence forms a secretion signal that is cleaved from said immunoglobulin heavy chain and light chain polypeptide following proteolytic processing.

48. (Amended) The plant cell of claim 43 wherein the immunoglobulin molecule forms a binding specific for a predetermined antigen.

50. (Amended) The plant cell of claim 43 wherein the immunoglobulin molecule is an abzyme.

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58. (Amended) The plant cell of claim 43 wherein the immunoglobulin molecule comprises an antibody.

59. (Amended) The plant cell of claim 43 wherein the immunoglobulin molecule comprises a paratope.

60. (Amended) The plant cell of claim 43 wherein the immunoglobulin molecule is glycosylated, said glycosylation being free of sialic acid.

65. (Amended) The plant cell of claim 43 wherein the leader sequence is a non-immunoglobulin leader sequence.

66. (Amended) The plant cell of claim 43, wherein the leader sequence is a yeast leader sequence.

67. (Amended) The plant cell of claim 43, wherein the leader sequence is a plant leader sequence.

Please add the following new claims:

69. (New) The plant cell of claim 43 wherein the cell is a tobacco plant cell.

70. (New) The plant cell of claim 43 wherein the leader sequence is an immunoglobulin leader sequence.

71. (New) The plant cell of claim 43 wherein the immunoglobulin molecule is selected from the group consisting of IgA, IgD, IgE, IgG, and IgM.

72. (New) The plant cell of claim 71 wherein the immunoglobulin molecule is IgG.